

IOWA STATE UNIVERSITY

Research Writing Seminar series

Graduate College, CELT, Executive Vice President & Provost Office, CAC, SP@ISU

# Constructing the Literature Review

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# Goals

Our goal:

- To provide guidelines for Literature Review writing

Your goal:

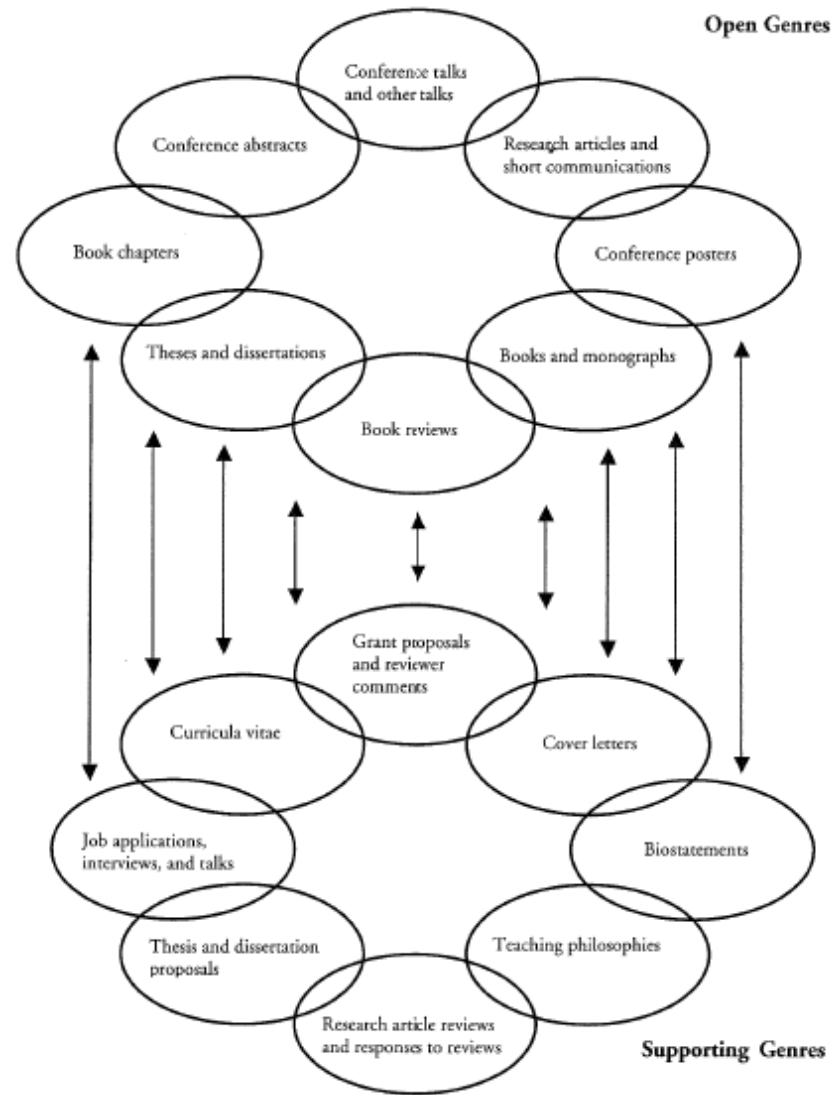
- To apply them to make your writing effective and purposeful

# Today's agenda

- Role of the LR
- LR placement and types
- LR as a defining component
- Preparing the LR
  - Organizing sources
  - Combining sources
- LR writing strategies
  - Marking boundaries
  - Engaging the sources
  - Citing and integrating sources
  - Taking a stance
  - Using metadiscourse
- LR revision and evaluation

# Role of the Literature Review

# Literature use across genres



“... a substantive, thorough, sophisticated literature review is a precondition for doing substantive, thorough, sophisticated research.”

(Boote & Beile, 2005, p. 3)

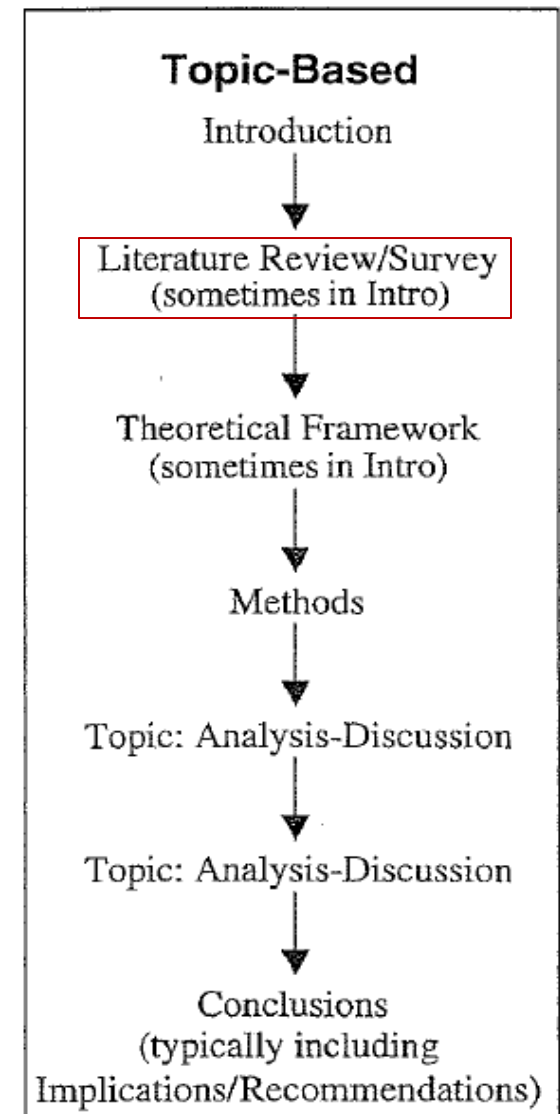
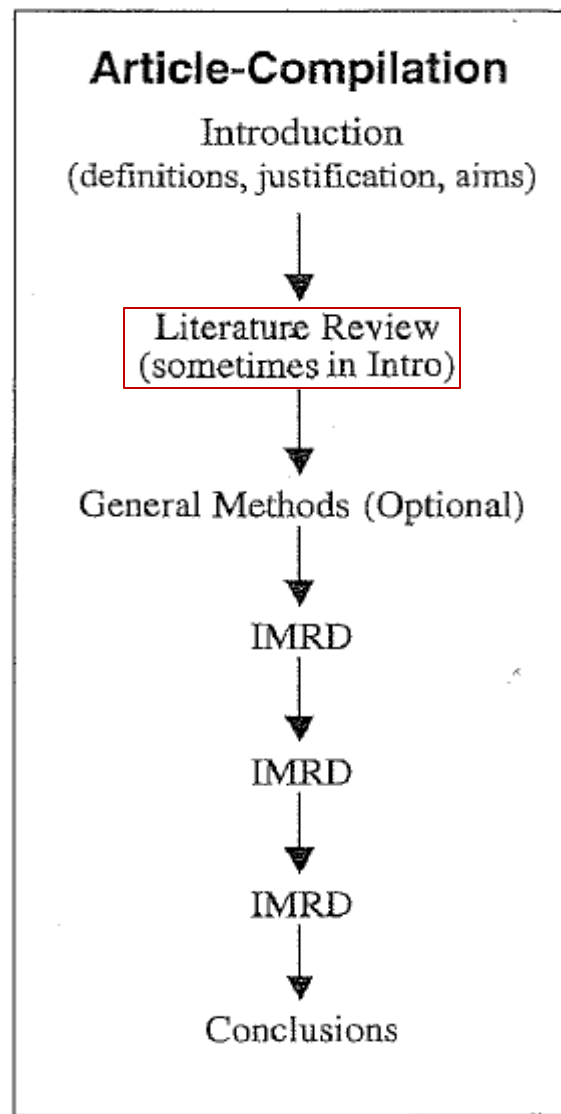
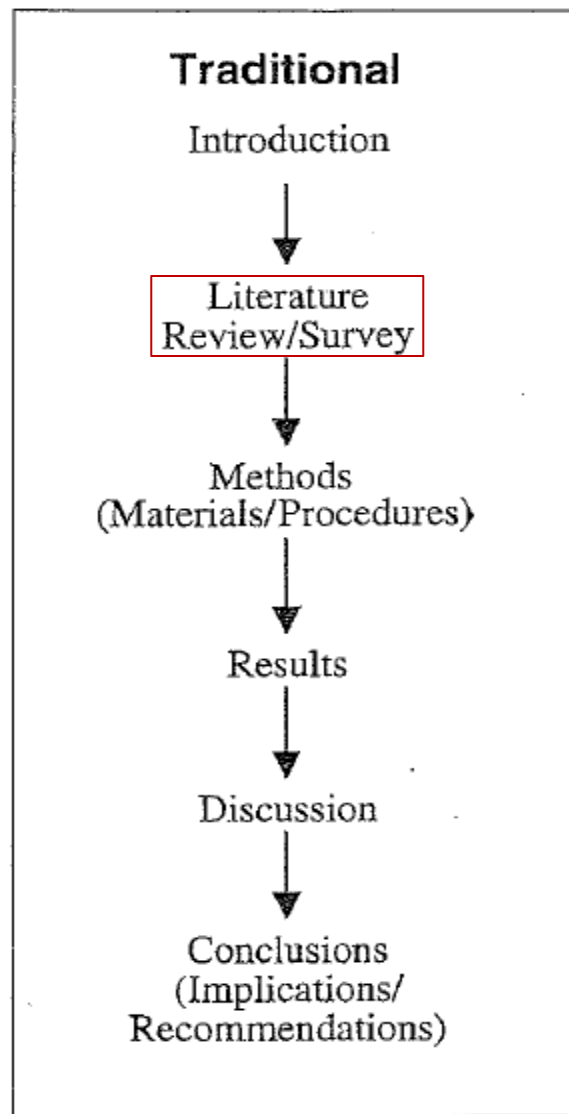
# Importance of LRs

- Acknowledge the intellectual property rights of authors; ensure ethics and defense against plagiarism (in manuals and practice guides)
- Recognize the history of the field by acknowledging previous achievements (esp. in well-established fields like sciences)
- Serve as guides that point readers to the relevant works (esp. in library and information sciences and among grad students)
- Demonstrate that the author qualifies as a member of the chosen scholarly community; demonstrate familiarity with the field (Bavelas, 1978)
- Project what the author perceives to be relevant work and establish and intellectual network (White, 2001)
- Create a research space, point to what is missing and so prepare a space for new research (Swales 1990)
- Serve as tools of persuasion; give statements and claims greater authority (Gilbert, 1997)

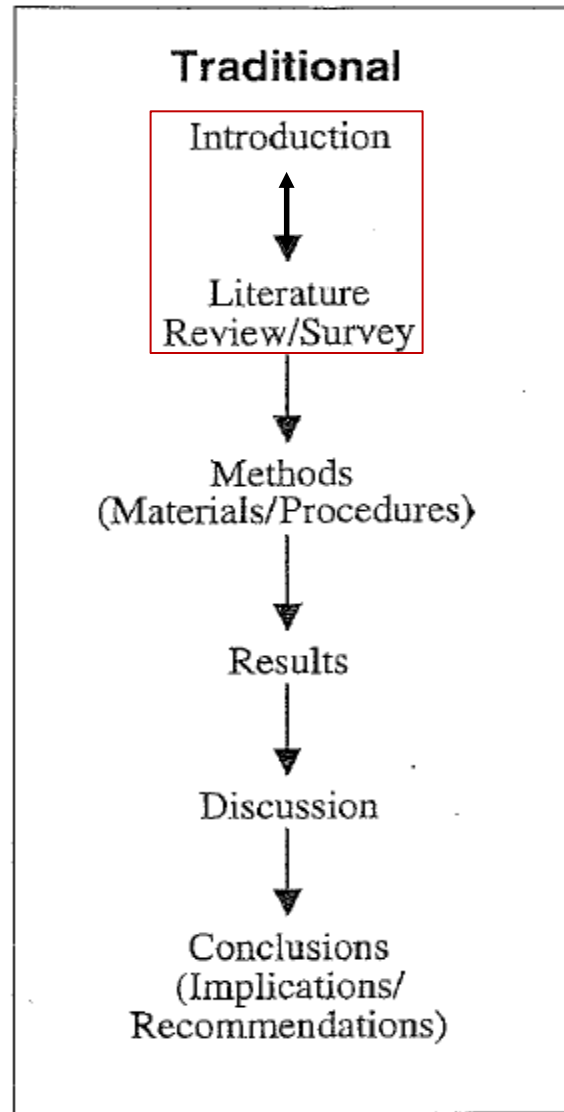
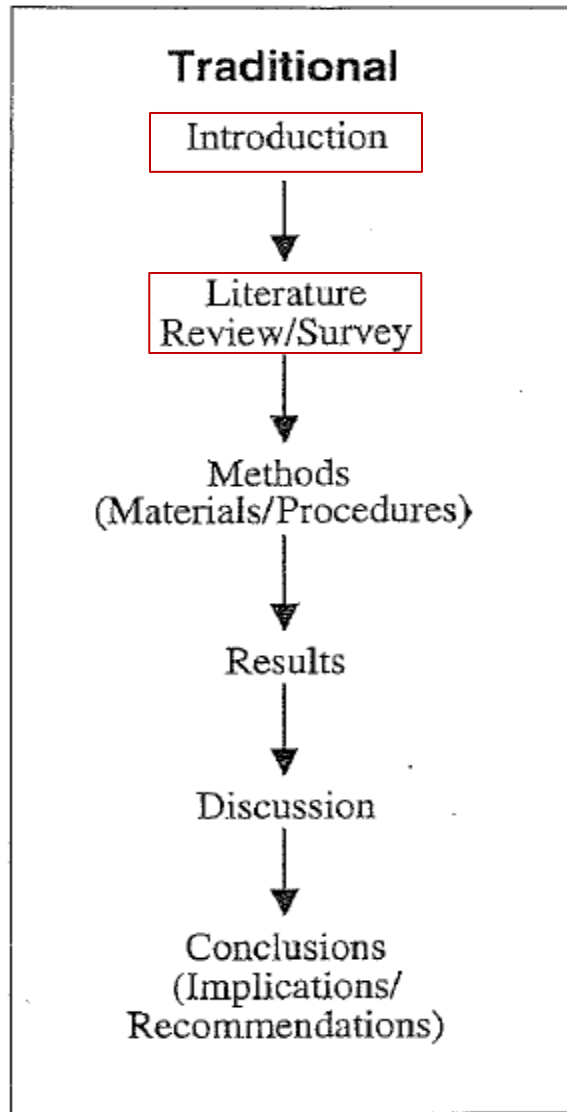
# Placement and types of Literature Reviews



# Where do LRs fit in theses/dissertations?



# Where do LRs fit in research papers/proposals?



# Types of LRs

- Narrative (most frequent in Thesis/Dissertation)
  - Select and synthesize literature into a coherent discussion
  - Sort, describe, evaluate and conceptualize or re-conceptualize the work in the field
  - Discuss methodologies, findings, limitations
- Systematic (esp. in Health Sciences)
  - Transparent criteria for including and excluding literature
  - Clarify the state of existing research and important implications
- Focused
  - Select and synthesize literature on a single aspect of previous research (e.g., methodology)
  - Examine research designs, methods, approaches used in investigations of a particular issue
  - Describe implications of choosing a certain methodology

# The Literature Review as a defining component

# LR – most criticized component

Expected to:

- Be more than a listing of previous work
- Be conservative in substance and style
- Be comprehensive and all-inclusive
- Not include far too many references
- Contribute to a well-defined scientific argument
- Make a point or answer a question, guiding the reader to the conclusion that the new research is relevant

## Sample criticism:

*“Your draft LR is basically little more than a list of previous research papers in the field. While it is clearly well researched, it doesn’t give me a sense of what has been more significant and less significant. It is hard to know where you stand.”*

*“This draft LR describes adequately each piece of relevant research, but does so as a kind of anthology, piece by piece. It needs a higher pass, something that does more to evaluate and connect.”*

*“Although I know what your research hypothesis is, I don’t see it informing your characterization of the previous literature. Somehow we need to see the relevant themes and issues more clearly.”*

Your goals:

- To make sure you are not “re-inventing the wheel”
- To show you did your homework
- To position your current work; i.e., demonstrate how it is situated within, builds on, or departs from published works
- To position yourself as a knowledgeable member of your chosen field

**Reviewer comment:** *What a whirlwind of information that is moved through swiftly and confidently. I thoroughly enjoyed reading this section.*

# Preparing the Literature Review

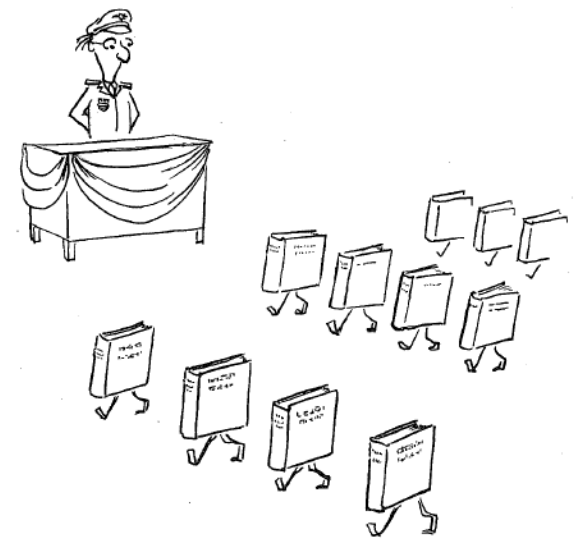


- Follow the process: Find literature → Read → Write
- Focus on recent and relevant publications
- Keep track of what you read in an annotated bibliography
- Identify conceptual traditions and frameworks that have been used to examine similar topics or issues
- Decide which potential areas you will omit and why
- Find problems, gaps, or controversies in existing body of research
- Critically evaluate each reference you discuss
- Conceptualize your review in such a way that it leads to an understanding of how your study will contribute to cumulative scholarly progress

# Organizing sources

By:

- Chronology (publication date)
- Provenance (country of origin)
- Field (discipline the work pertains to)
- Genre (type of publication)
- **Perspective** (writer's attitude; e.g., positive, negative, neutral)



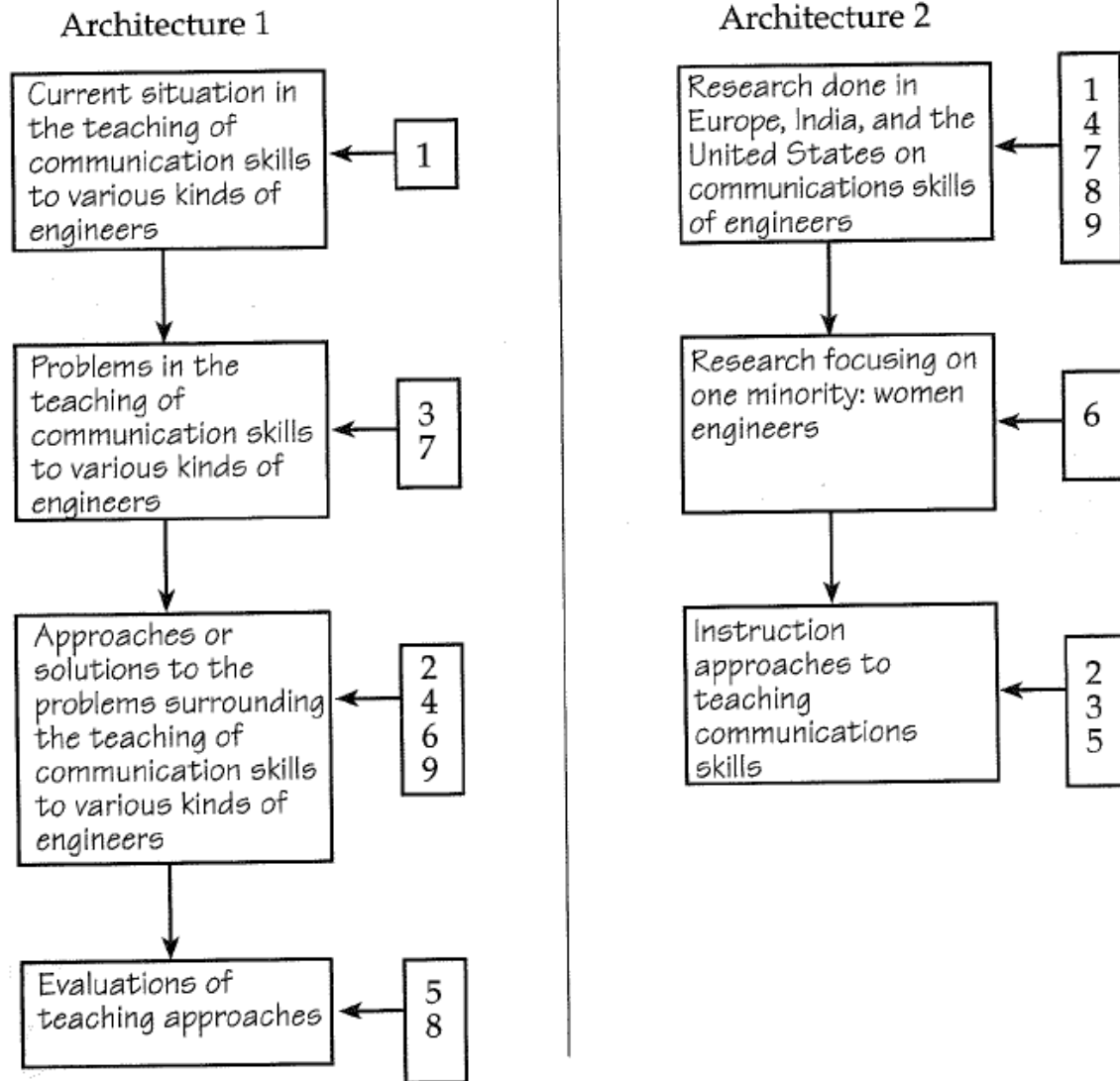
Through *your* choice and presentation of lit-re, you establish a context for *your* work, highlighting *your* potential contribution to the field

# Organizing sources

TABLE 2. Perspective of the Contributions

Perspective	Author	Date	Provenance	Field
-	Cooper	1989	U.S.	RC
-	Harris	1989	U.S.	RC
-	Lyon	1992	U.S.	RC
-	Casanave	1995	Japan	AL
-	Prior	1998	U.S.	RC
+	Porter	1986	U.S.	RC
+	Swales	1990	U.S.	AL
+	Lave and Wenger	1991	U.S.	Education
+	Killingsworth and Gilbertson	1992	U.S.	TC
+	Porter	1992	U.S.	RC
+	Olsen	1993	U.S.	TC
+	Van Nostrand	1994	U.S.	TC
+	Bex	1996	U.K.	AL
+	Hanks	1996	U.S.	Anthropology
+	Beaufort	1997	U.S.	RC
+	Flowerdew	2000	Hong Kong	AL
+	Pogner	2003	Denmark	Business
=	Bizzell	1992	U.S.	RC
=	Swales	1993	U.S.	AL
=	Miller	1994	U.S.	TC
=	Schryer	1994	Canada	TC
=	Berkenkotter and Huckin	1995	U.S.	TC/AL
=	Devitt	1996	U.S.	RC
=	Grabe and Kaplan	1996	U.S.	AL
=	Gunnarsson	1997	Sweden	Swedish studies
=	Johns	1997	U.S.	AL
=	Petersen	2007	Australia	Education

# Organizing sources



# Combining sources

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-	Prior	1998	U.S.	RC
+	Porter	1986	U.S.	RC
+	Swales	1990	U.S.	AL
+	Lave and Wenger	1991	U.S.	Education
+	Killingsworth and Gilbertson	1992	U.S.	TC
+	Porter	1992	U.S.	RC
+	Olsen	1993	U.S.	TC
+	Van Nostrand	1994	U.S.	TC
+	Bex	1996	U.K.	AL
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=	Schryer	1994	Canada	TC
=	Berkenkotter and Huckin	1995	U.S.	TC/AL
=	Devitt	1996	U.S.	RC
=	Grabe and Kaplan	1996	U.S.	AL
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=	Johns	1997	U.S.	AL
=	Petersen	2007	Australia	Education

# Combine sources into a critical synthesis

*So far, the perceived usefulness of the computerized feedback (as Chang & Tung [2008] and Davis, Bagozzi & Warshaw [1989] argued in the Technology Acceptance Model, in which the greater extent users accepted and believed the technology, and the more benefits technology would bring to the users) has not been examined in the English as a second/foreign language (ESL/EFL) writing context. (gap) It remained unknown to what degree student writers believe that using automated writing system enhances their writing skills. (gap) Also, comparative research into the AWE and peer evaluation (PE) has been largely neglected. (gap) How the multiple dimensions on product, process and students' perceptions, as suggested in Long (1984), Storch (2005) and Warschauer and Ware (2006), interact with these two kinds of evaluation requires more elaboration within the context of L2 writing. (justification) Instead of referring to the writing process, the process approach examines the way students make use of feedback from these two forms of writing evaluation. (background) The product approach addresses to what extent these two writing activities help students improve their writing. (background) Students' perceptions towards these two kinds of feedback, as Tsai (2004, 2007) suggests, may be of great importance in shaping their views and behaviors about English writing, (general hypothesis) and it is thus worthy of investigation. (justification)*

(from Lai, Y.-H., 2010)

# Strategies for effective LR writing

# Marking the boundaries

- Of short quotations
  - with a short phrase; e.g., *Doe (2005) argued that this concept is “.....” (p. 233).*
  - as part of a sentence; e.g., *This concept “was derived from ...” (Doe, 2005, p. 233).*
  - with an entire sentence (or more); e.g., *Doe (2005) explains the site as a probable burial pit: “The artifacts of ... were clustered around...” (p. 233).*
- Of long quotations
  - with block indentation
- Of unquoted sources
  - by summarizing
  - by paraphrasing
  - by mentioning briefly
  - by using an idea from the source



# Engaging the sources

- Establish credibility of the source
  - *In a major survey, Doe (2005) discovered that...*
  - *Based on 68 interviews, Doe (2005) concluded that...*
  - *In an experiment with a more rigorous model, Doe (2005) corrected...*
  - *As a result of triangulation of qualitative and quantitative data, Doe (2005) found...*
- Recommend the source
  - *The most significant finding, however, comes from Doe (2005).*
  - *Doe (2005) identified an important detail:*
  - *In 2004, Doe (2005) developed a powerful synthesis of...*

# Engaging the sources

- Discuss or apply the source
  - *This evidence greatly strengthens...*
  - *This means, in effect, that...*
  - *In other words, ...*
  - *Doe (2005) appears to be implying that...*
  - *The inference follows that...*
  - *It would be incorrect to interpret this as...*
  - *Yet, it cannot be concluded that...*
  - *Such a fact argues against the idea that...*
  - *These findings seem to contradict...*
- Be reasonable about the effect of the source
  - *... lends weight to the argument... (not proves)*
  - *... presents a sturdy challenge to... (not rejects)*

# Engaging the sources

- Include sources that conflict with your position and identify the source of disagreement
  - the source is outdated
  - the source focuses on different assumptions
  - the source is using a different definition
  - interpretations in the source differ
  - the authors have different theoretical background
  - the source exhibits a certain bias
- Criticize opposing sources
  - point out deficiency in facts
  - explain the weakness in interpretation
  - identify failure to include smth.
  - evaluate faulty methodology or gaps in reasoning

# Integrating the sources

- Work the sources into the discussion
- Combine summarizing, paraphrasing, and quoting
- Beware of long quotations
- Avoid overusing one source
- Begin and end each paragraph with your own words
- Employ citation patterns in your field

# Citation patterns

Discipline	Quotation	Block quotation	Summary/paraphrase	Generalization
Biology	0	0	72	38
Physics	0	0	68	32
Electrical engineering	0	0	66	34
Mechanical engineering	0	0	67	33
Marketing	3	2	68	27
Education	20	1	55	20
Applied linguistics	8	2	67	23
Sociology	8	5	69	18
Philosophy	2	1	89	8

# Citing in the LR

## Types of citations

- **Author prominent** (typically focus on only one or two studies)
- **Research prominent** (consolidate many studies and make general comments)

## Verb tense and aspect

- **Past**
  - reference to a single study (often an author prominent reference to researcher activity or findings)
  - what previous research did (e.g., found, revealed, indicated, etc.)
- **Present perfect/continuous**
  - reference to an area on inquiry (generally research prominent citations)
  - synthesis of what has been done so far (have investigated, have focused on, have examined; have concluded, etc.)
- **Present**
  - reference to generally accepted knowledge of the field (generally research prominent citations)
  - arguments, claims, statements, and suggestions (e.g., argue, suggest, maintain, etc.)

# Citing in the LR: Examples

1. *Arslan (2007) investigated the performance characteristics of biodiesel as a diesel engine fuel.*

*or*

*Biodiesel was shown to have promise as an alternative to regular diesel (Arslan, 2007).*

2. *The potential of biodiesel as an alternative to regular diesel has been widely investigated (Arslan, 2007; Pinnarat, 2006; Savage, 2005).*
3. *The scarcity of known petroleum reserves is making renewable energy resources increasingly attractive. [1-4]*

# Summarize and paraphrase

- Summarize – focus on the main message of the source rather than on specific points

*The existing literature on... strongly suggests that...*

*Studies have shown that ... is associated with...*

*Because of methodological limitations related to studying ..., it is unclear whether ...*

*... there is evidence to suggest that...*

*The need for research on...*

*Studies on ... are consistent with a larger body of literature on...*

*... has been shown to be moderately correlated with...*

*... has been shown to be related to...*

*Scholars appear to agree that...*



# Summarize and paraphrase

- Paraphrase – restate a specific point in your own words
- Beware of challenges
  - Highly technical language (no synonyms)
  - Very effective expression (difficult to paraphrase successfully)
  - Difficult to understand the source (difficult to paraphrase accurately)
  - Not enough words in your academic vocabulary (prone to plagiarize)
    - Borrowing words and phrases commonly used in academic English is OK
    - Borrowing content and ideas without citing is NOT ok

# Citing and Ambiguity

1. *Researchers have been paying increasing attention to the concept of burnout [...].(Bakker, Demerouti, & Schaufeli, 2002)*

→ Are these major researchers in their field, used to demonstrate increasing interest?

→ Are they the originators of the concept?

→ Are they commentators in their 2002 review or summary publication?

2. *Most contemporary researchers agree that the syndrome is characterized by three related, but empirically distinct, elements: namely exhaustion, cynicism, and reduced professional efficacy (Leiter, 1996; Maslach, 1996; Jackson, 1996).*

→ Are the 3 citations to be associated with one element each or with all three of them?

3. *Feelings of exhaustion or energy depletion are generally considered a core symptom of the burnout syndrome (Shirom, 1989).*

→ Did Shirom draw this conclusion based on reading of the lit-re or based on his/her original research?

# Citing and Ambiguity

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→ Are these major researchers in their field, used to demonstrate increasing interest?

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**Re-write:** *In recent years, growing attention has been paid to the concept of burnout. Burnout has been defined as a work-related stress reaction that can be found among employees in a wide variety of occupations (Bakker, Demerouti, & Schaufeli, 2002).*

# Taking a stance

- Academic writing is not impersonal and not simply a matter of objectively reporting scientific content
- Writers do convey their perspective, stance, or attitude toward the work in their fields

*The big question with regard to effects of information overload is whether and how it impacts decision accuracy, decision time, and general performance. While research results have often been contradictory, especially among the groundbreaking studies in marketing, there is wide consensus today that heavy information load can affect the performance of an individual negatively.*

# Taking a stance

*The importance of an intact immune system in the BCG antitumor activity is broadly accepted. (expresses agreement in the field)*

*The sheer number of alternative mRNA isoforms has triggered an ongoing debate as to whether the majority of these transcripts are generated by mistake. (expresses disagreement in the field)*

*Previous work has clearly shown that... (has no doubt)*

*Recent work [15] and [16] has elegantly described ... (is impressed by work)*

*These studies have greatly contributed to our understanding of... and have raised interesting questions that await further clarification. (sees as important)*

Show your own perspective toward the selected lit-re with:

- Hedges (words that withhold your full commitment to a point)
- Boosters (words that emphasize the certainty of your claim)
- Attitude markers (words that indicate your evaluative attitude)

# Taking a stance

Words that strengthen	Words that soften	Verbs
widely, broadly	somewhat	accepted
		agree
		debate
		disagree
		believe
		establish
Words that strengthen	Words that soften	Nouns
widespread	some, general	acceptance
		agreement
		discussion
		controversy
		consensus
		research

# Reporting verbs in LRs

Discipline	Verbs and Frequency					
Rank	1	2	3	4	5	6
<u>Harder Sciences</u>						
Biology	<i>describe</i>	<i>find</i>	<i>report</i>	<i>show</i>	<i>suggest</i>	<i>observe</i>
Physics	<i>develop</i>	<i>report</i>	<i>study</i>	<i>find</i>	<i>expand</i>	
Electrical						
Engineering	<i>propose</i>	<i>use</i>	<i>describe</i>	<i>show</i>	<i>publish</i>	<i>develop</i>
Mechanical						
Engineering	<i>describe</i>	<i>show</i>	<i>report</i>	<i>discuss</i>	<i>give</i>	<i>develop</i>
Epidemiology	<i>find</i>	<i>describe</i>	<i>suggest</i>	<i>report</i>	<i>examine</i>	<i>show</i>
Nursing	<i>find</i>	<i>suggest</i>	<i>report</i>	<i>identify</i>	<i>indicate</i>	<i>show</i>
Medicine	<i>show</i>	<i>report</i>	<i>demonstrate</i>	<i>observe</i>	<i>find</i>	<i>suggest</i>
<u>Softer Sciences</u>						
Marketing	<i>suggest</i>	<i>argue</i>	<i>find</i>	<i>demonstrate</i>	<i>propose</i>	<i>show</i>
Applied Linguistics	<i>suggest</i>	<i>argue</i>	<i>show</i>	<i>explain</i>	<i>find</i>	<i>point out</i>
Psychology	<i>find</i>	<i>show</i>	<i>suggest</i>	<i>report</i>	<i>demonstrate</i>	<i>focus</i>
Sociology	<i>argue</i>	<i>suggest</i>	<i>describe</i>	<i>note</i>	<i>analyze</i>	<i>discuss</i>
Education	<i>find</i>	<i>suggest</i>	<i>note</i>	<i>report</i>	<i>demonstrate</i>	<i>provide</i>
Philosophy	<i>say</i>	<i>suggest</i>	<i>argue</i>	<i>claim</i>	<i>point out</i>	<i>think</i>

Source: Based on Swales, J.M., and C.B. Feak. (2004). *Academic Writing for Graduate Students: Essential Skills and Tasks*, 2d ed. Ann Arbor: University of Michigan Press.

# Using metadiscourse

Use metadiscourse to write about the evolving text rather than referring to the subject matter in order to:

- build a relationship with your audience or engage your audience
- direct your audience (often at the beginnings and ends of sections)
- help your audience understand your writing
- reduce the cognitive load of your reader
- aid communication and support your position
- support complex rather than straightforward material



# Using metadiscourse

- Use metadiscourse for
  - Present orientations (e.g., *At this point, the assumption is that...*)
  - Recapitulations (e.g., *Thus far, this review has outlined the need for further development of...*)
  - Future projections (e.g., *In this section, the past and current applications of the ... theory will be discussed.*)

Direction	Level
<b>Previews</b> Look forward, anticipate, summarize, or refer to a later stage of the text	<b>Scope of the segment being referred to</b> 1. dissertation as a whole 2. chapter(s) 3. section(s)
<b>Reviews</b> Look back, repeat, summarize, refer to an earlier stage in the text	4. paragraph(s) 5. sentence(s)
<b>Overviews</b> Look in both directions and refer to the current stage of the text in overall terms	<b>Distance to the segment referred to</b> 6. a different chapter 7. this chapter but another section within it 8. this section but a different part of it

# Revising and evaluating the Literature Review

# Revise the LR

- May be boring, but extremely necessary!!!
- Make sure you are:
  - making it long enough to persuade readers that you have read widely
  - not missing important empirical and/or theoretical background
  - being argumentative
  - presenting a stance
  - leading to the conclusion that your research is relevant
  - mostly synthesizing and summarizing
  - paraphrasing more than quoting; quoting only where appropriate
  - alternating author-prominent with research-prominent citations

# Verify the LR structure

- Like other writing, separate LRs have a functional:
  - introduction (general description of the topic, shared knowledge in the field, claims of centrality, scope and organization of LR)
  - body (critical synthesis of lit-re highlighting a “niche”)
  - conclusion (recapitulation of LR as a retrospective summary)
- LRs in Introductions
  - constitute a significant part of “establishing a territory”
  - act as means by which the “niche” is identified
  - begin building credibility
    - by demonstrating knowledge on the chosen topic
    - by claiming relevance in the field
    - by justifying why an area that needs to be addressed by research

# Evaluate the Literature Review

- Have you adequately covered the “research territory”?
- Have you shaped your LR to fit your research questions or hypotheses?
- Have you appropriately grouped your various sources?
- Have you struck an appropriate balance between descriptions and evaluation?
- Have you used sufficient metadiscourse to guide your readers?
- Have you sufficiently explained why certain sources were included or excluded?
- Have you discussed the literature in an original way, avoiding plagiarism issues?
- Have you used different types of citations?
- Have you chosen the right verb tenses for your citations?
- Have you used a variety of reporting verbs and structures?

# Literature Review evaluation rubric

Category	Criterion	1	2	3	4
1. Coverage	A. Justified criteria for inclusion and exclusion from review.	Did not discuss the criteria inclusion or exclusion	Discussed the literature included and excluded	Justified inclusion and exclusion of literature	
2. Synthesis	B. Distinguished what has been done in the field from what needs to be done.	Did not distinguish what has and has not been done	Discussed what has and has not been done	Critically examined the state of the field	
	C. Placed the topic or problem in the broader scholarly literature.	Topic not placed in broader scholarly literature	Some discussion of broader scholarly literature	Topic clearly situated in broader scholarly literature	
	D. Placed the research in the historical context of the field.	History of topic not discussed	Some mention of history of topic	Critically examined history of topic	
	E. Acquired and enhanced the subject vocabulary.	Key vocabulary not discussed	Key vocabulary defined	Discussed and resolved ambiguities in definitions	
	F. Articulated important variables and phenomena relevant to the topic.	Key variables and phenomena not discussed	Reviewed relationships among key variables and phenomena	Noted ambiguities in literature and proposed new relationships	
	G. Synthesized and gained a new perspective on the literature.	Accepted literature at face value	Some critique of literature	Offered new perspective	
3. Methodology	H. Identified the main methodologies and research techniques that have been used in the field, and their advantages and disadvantages.	Research methods not discussed Research methods not discussed	Some discussion of research methods used to produce claims Some discussion of appropriateness of research methods to warrant claims	Critiqued research methods Critiqued appropriateness of research methods to warrant claims	Introduced new methods to address problems with predominant methods
	I. Related ideas and theories in the field to research methodologies.				
4. Significance	J. Rationalized the practical significance of the research problem.	Practical significance of research not discussed	Practical significance discussed	Critiqued practical significance of research	
	K. Rationalized the scholarly significance of the research problem.	Scholarly significance of research not discussed	Scholarly significance discussed	Critiqued scholarly significance of research	
5. Rhetoric	L. Was written with a coherent, clear structure that supported the review.	Poorly conceptualized, haphazard	Some coherent structure	Well developed, coherent	

Note: The column-head numbers represent scores for rating dissertation literature reviews on 3-point and 4-point scales. Used with permission by Sage (from Boote & Belle, borrowed from Hart 2005).

# Remember

Evaluate sources critically.

Synthesize previous research.

Engage sources creatively and take a stance.

Support your claims with thorough discussion and interpretation of complex evidence.

# QUESTIONS?

## THANK YOU!

[ecotos@iastate.edu](mailto:ecotos@iastate.edu)



## Resources:

“Telling a Research Story: Writing a Literature Review” by C.B. Feak and J. M. Swales (2009)

“Academic Writing for Graduate Students: Essential Tasks and Skills” by J. M. Swales and C.B. Feak (2004)

“English in Today’s Research World: A Writing Guide” by J. M. Swales and C.B. Feak (2000)

“Creating contexts: Writing Introductions across genres” by C.B. Feak and J. M. Swales (2011)

“Using sources effectively: Strengthening your writing and avoiding plagiarism” by Robert A. Harris (2011)